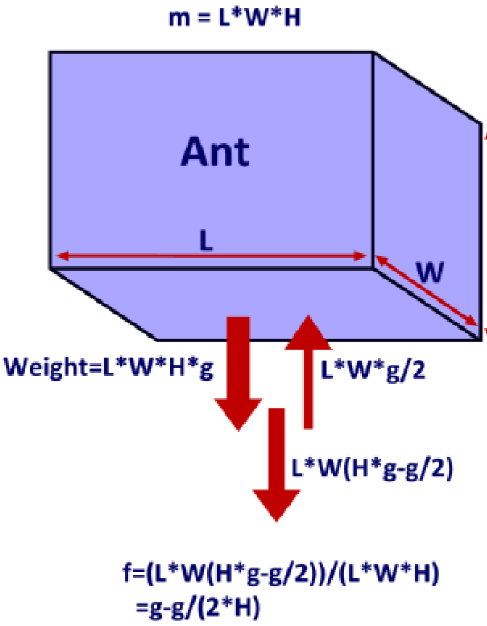
Ants make up 10% of the total world animal tissue. The total biomass of all the ants on Earth is roughly equal to the total biomass of all the people on Earth. However, unlike the people on Earth when they fall from a height they do not die for two reasons:

- They have so little mass relative to their air resistance that they fall slowly and, therefore, have little energy to dissipate when they hit the ground.
- Their bodies are tiny deformable tanks, well designed to absorb blows.

In general, small objects have less impact of gravitation on them because they have more surface area/volume compared to larger objects. For example consider a (1x1x1) cube. Its surface area is 6 and volume is 1. So the ratio is 6:1 and for a (10x10x10) cube the surface area is 600 and volume is 1000. So the ratio is 6:10. Given the shape of many ants you will have to find out which ant has the highest effect of gravitation on it.

For simplicity we will assume the following things in this problem:



1. All ants are described as a box shaped object. A box shaped object is described with three integers L, W, and H which denotes the length, width and height of the object. So the volume of the ant is $(L \times W \times H)$.
2. The density (Mass per unit volume) is 1. So the mass of the above mentioned ant is also $(L \times W \times H)$ and so the weight is $(L \times W \times H) \times g$ (Here g is the acceleration caused by gravitation).
3. When an ant freely falls four sides are upright and so the faces at the top and bottom are parallel with the horizon. So the area of the plane facing bottom is always $L \times W$. For any ant the upward force put by the air is proportional to the area of the of the bottom face. To be specific it is $\frac{L \times W \times g}{2}$. After some manipulation it can be proved that the downward acceleration $f = g - \frac{g}{2H}$. So the downward acceleration actually depends solely on the value of H (as g is same for all ants).

Given the dimension of several ants, report the volume of the ant that has the highest downward acceleration. If there is a tie, report the one with the largest volume.

Input

The input file contains at most 500 test cases. The description of each test case is given below:

First line of each test case contains an integer T ($T \leq 100$) which denotes the total number of ants to consider. Each of the next T lines contains three integers which denote the value of L, W and H ($1 \leq L, W, H \leq 50$) of an ant respectively.

Input is terminated by a line containing a single zero.

Output

For each set of input produce one line of output. This line contains the volume of the ant that has the highest downward acceleration. If there is a tie report the ant with the highest volume.

Sample Input

```
3
3 4 5
12 1 5
20 10 4
3
3 4 5
20 30 5
1 2 4
0
```

Sample Output

```
60
3000
```